

IN THE ABSTRACT

Please replace the abstract with the following:

A method for determining fringing capacitances on passive devices within an integrated circuit is disclosed. A fringing capacitance region on a passive device is initially divided into a group of fringing electric field areas. A set of fringing capacitance equations is then developed for the fringing electric field areas accordingly. A determination is made as to whether or not an accuracy of the fringing capacitance equations meets a predetermined threshold. If so, then the fringing capacitance equations are utilized in compact device models to determine fringing capacitance on the passive device; otherwise, the physically-based fringing capacitance equations are fitted to a set of extracted data to generate a refined set of physically-based fringing capacitance equations, and the refined set of physically-based fringing capacitance equations is utilized in compact device models to determine fringing capacitance on the passive device.